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ENGINEERING ASSOCIATES

CONSULTING ENGINEERS & SURVEYORS

March 3, 1993

Before the  
Federal Communications Commission  
Washington, DC 20544

In the Matter of )  
Replacement of Part 90 )  
by Part 88 to Revise )  
the Private Land Mobile )  
Radio Services and Modify )  
the Policies Governing them. )

PR Docket 92-235

To: The Commission

**COMMENTS**

**ENGINEERING ASSOCIATES** submits its comments in response to the Commission's notice of Proposed Rule Making in this proceeding, concerning:

1. Power Restrictions on Fixed Stations at Higher Elevations.
2. Channel Splitting.
3. Frequency Stability.
4. Consolidation of Private Land Mobile Radio Services.

Complete comments are provided on the following page.

1. **Power Restrictions:** This proposal, which would require licensees to reduce power depending on height above average terrain, is a two dimensional solution to a three dimensional problem that will not work and that we oppose, even though we currently do not use a repeater transmission system for our two-way radio communications.

In many cases, high elevation transmitter sites are surrounded by natural obstacles such as other mountains. Environmental, economic, and zoning concerns often prohibit use of the best transmitter site. Consequently, many transmitters are located miles away from the desired coverage area. To compensate for these factors, a licensee must use sufficient power to cope with geographic realities.

Air pollution and other exogenous factors can cause a dramatic loss of signal strength at the mobile receiver. As example, losses of 20 to 30 DB are frequently noted in the Los Angeles area during periods of high air pollution. Snow and ice on the antenna in winter can decrease the performance of the system as can foliage and trees during the growth season. Conditions around the receiver -- which, in a mobile unit, change continually -- often restrict

Second channel spacings of either 5 or 6.25 khz will result in

frequencies is to invite inefficiency, conflict and abuse of power. In particular, industrial and commercial users of two-way radios would be at a disadvantage in the proposal as they would all be placed in a single pool for frequency coordination and might not be able to obtain frequencies when needed.

Although the current rules provide for licensing of cooperatives, this will be eliminated under the new proposal. These co-ops add efficiency to the licensing and coordination process. The presence of a de jure coordinator on the scene ensures that frequency utilization within the spectrum licensed to the co-op is optimized. Elimination of this provision of the rules will lead to major problems for many small-scale users. Although some problems exist with the current coordination system, we oppose these wholesale changes as we believe this proposal will make coordination problems much more difficult for two-way radio users.

Respectfully submitted,

ENGINEERING ASSOCIATES



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Principal/Director